

USING TECHNOLOGY TO STUDY CELLULAR AND MOLECULAR BIOLOGY

Mississippi Competencies for Biology

Lesson	Competency	Description
1	1.a	Demonstrate the proper use and care for scientific equipment used in biology.
1	1.b	Observe and practice safe procedures in the classroom and laboratory.
1, 2, 3	1.c	Apply the components of scientific processes and methods in the classroom and laboratory investigations.
All lessons	1.d	Communicate results of scientific investigations in oral, written, and graphic form.
3	3.d	Describe the way in which cells are organized in multicellular organisms.

Mississippi Competencies for Pre-Algebra

Lesson	Competency	Description
1	1.b	Solve real-life problems involving addition, subtraction, multiplication, and division of rational numbers (i.e., integers, decimals, fractions, and mixed numbers.)
1	1.d	Add, subtract, multiply, and divide rational numbers (i.e., integers, decimals, fractions, and mixed numbers) with and without calculators.
1, 2	1.i	Solve proportions, including unit rate, scale, and measurement. Apply proportional reasoning to real-world problems.
1, 2, 3	4.a	Convert, perform basic operations, and solve real-world application problems using standard measurements.
1	5.a	Construct and interpret histograms, bar graphs, line graphs, frequency tables, circle graphs, stem-and-leaf plots, box-and-whisker plots, and scatter plots from given data.
1, 2, 3	5.b	Predict patterns or generalize trends based on given data.
1, 2, 3	5.g	Collect data. Select and justify the most appropriate representations to organize, record and communicate data.

Mississippi Competencies for Algebra I

Lesson	Competency	Description
1, 2	1	Understand relationships between numbers and their properties and perform operations fluently.

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1	4.a	Solve real-world problems involving formulas (e.g., circumference, perimeter, area, volume, interest, distance, rate, work, etc.).
1, 2, 3	5.a	Collect, organize, graph, and interpret data sets.
Mississippi Competencies for Language Arts – Grades 9 & 10		
Lesson	Competency	Description
All lessons	3	The student will produce, analyze, and evaluate effective communication.
All lessons	3.c	The student will compose responses to literature, position papers, and expository essays in the informative mode clearly expressing a main idea thoroughly developed by relevant supporting details, which are well elaborated and sufficient in number.
All lessons	4	The student will use standard English grammar, mechanics, and sentence structure to communicate.
Mississippi Competencies for Comprehensive Health – Grades 9 - 12		
Lesson	Competency	Description
3	3.g	List future positive effects of drugs and medicines on society.